Division 10-50.70: Outdoor Lighting Standards

Sections:

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10-50.70.010 Purpose

- A. The City was recognized as the world's first International Dark Sky City on October 24, 2001 for its pioneering work in the development and implementation of lighting codes that balance the need to preserve Flagstaff's dark sky resource with the need for safe lighting practices. The purpose of this Division is to help assure that dark skies remain a resource to be enjoyed by the Flagstaff community and its visitors, and to provide safe and efficient outdoor lighting regulations that protect Flagstaff's dark skies from careless and wasteful lighting practices. Dark starry nights, like natural landscapes, forests, clean water, wildlife, and clear unpolluted air, are valued in many ways by the residents of this community, and they provide the natural resource upon which our world-renowned astronomical industry depends.
- B. The use of outdoor lighting is often necessary for adequate nighttime safety and utility, but common lighting practices can also interfere with other legitimate public concerns. Principle among these concerns is:
 - 1. The degradation of the nighttime visual environment by production of unsightly and dangerous glare;
 - 2. Lighting practices that produce excessive glare and brightness that interferes with the health and safety of Flagstaff's citizens and visitors;
 - 3. Unnecessary waste of energy and resources in the production of too much light or wasted light;
 - 4. Interference in the use or enjoyment of property that is not intended to be illuminated at night by light trespass, and the loss of the scenic view of the night sky due to increased urban sky-glow; and

- The impact of inappropriately designed outdoor lighting that disrupts nocturnal animal behavior, particularly migrating birds and other species.
- C. The concerns of safety, utility, dark sky protection and aesthetic appearance need not compete. Good modern lighting practices can provide adequate light for safety and utility without excessive glare or light pollution. Careful attention to when, where, and how much night-time lighting is needed results in better lighting practices, darker skies and reduced energy use and costs.
- D. It is therefore the intent of this Division to encourage lighting practices and systems which will:
 - 1. Minimize light pollution, glare, and light trespass;
 - 2. Conserve energy and resources while maintaining night time safety, utility, security, and productivity; and
 - 3. Curtail the degradation of the night time visual environment.
- E. It is recognized that since topographic and atmospheric conditions surrounding the City are uniquely suited for astronomical observation and since observatories have been established in the City's vicinity, the City promotes the reduction of light pollution which interferes with the successful operation of these observatories.
- F. The sensitivity of different areas to the different obtrusive impacts of outdoor lighting use depends on many factors, including the dominant use of the area (e.g. residential, industrial or commercial). Further, the effect of outdoor lighting on light pollution to the observatories is strongly dependent on the distance of those lights from the observatories. Therefore, three Lighting Zones are established, with varying standards designed to address the principal issues associated with the different areas.

10-50.70.020 Conformance with Applicable Codes

All outdoor lighting fixtures shall be installed in conformance with the provisions of this Division and the applicable Building Codes currently in effect in the City under appropriate permit and inspection.

10-50.70.030 Applicability

A. Existing Buildings and Uses

Any new outdoor lighting installed on a building or parcel shall meet the requirements of this Division with regard to shielding and lamp type. The total outdoor light output after the new outdoor lights are installed shall not

exceed that legally nonconforming or pre-approved on the site before the modification, or as permitted by this Division, whichever is larger.

B. New Uses, Buildings, and Major Additions or Modifications

- 1. The requirements of this Division apply to any and all new and major additions to land uses, developments, buildings, or structures.
- 2. If a major addition occurs on a property, the entire property shall comply with the requirements of this Code. For purposes of this section, the following are considered to be major additions:
 - Additions of 25 percent or more in terms of additional dwelling units, gross floor area, seating capacity, or parking spaces, either with a single addition or with cumulative additions subsequent to the effective date of this provision; and
 - b. Single or cumulative modification or replacement of outdoor legally installed lighting fixtures constituting 25 percent or more of the lumens that would be permitted under this Division for the property, no matter the actual amount of lighting already on a non-conforming site, constitutes a major addition for purposes of this section.

C. Minor Additions or Modifications

Additions or modifications of less than 25 percent in terms of additional dwelling units, gross floor area, seating capacity, or parking spaces to existing uses shall require the submission of a complete inventory and site plan detailing all existing and any proposed new or modified outdoor lighting. Any new or modified outdoor lighting on the site shall meet the requirements of this Division with regard to shielding and lamp type; the total amount of lighting after the modifications are complete shall not exceed that on the site before the modification, or that permitted by this Division, whichever is larger.

D. Change of Use

- 1. Except as provided in Section 10-20.60.080 (Nonconforming Outdoor Lighting), whenever the use of any existing building, structure or premises is intensified through the incorporation of additional dwelling units, gross floor area, seating capacity, or other units of measurement which create a need for an increase in the total number of parking spaces of 25 percent or more either with a single change or cumulative changes subsequent to the effective date of this Zoning Code, then all outdoor lighting shall be reviewed and brought into compliance with the requirements of this Division before the use is resumed to the maximum extent feasible as determined by the Director.
- 2. For changes of use or intensity which require an increase in parking of less than 25 percent cumulative, the applicant shall only have to meet the requirements of this Division for any new outdoor lighting provided.

E. Public Rights-of-Way Exempt

The provisions of this Division shall not apply to streetlights installed in public rights-of-way.

F. In accordance with A.R.S. § 49-1101, all outdoor light fixtures on property or buildings that are owned and operated by the City of Flagstaff shall be fully shielded.

10-50.70.040 Establishment of Lighting Zones

A. Establishment of Lighting Zones

Three Lighting Zones are established, with varying development standards specific to their location within the City. Lighting Zones are shown in Division 10-90.50 (Lighting Zone Map).

B. Lighting Zone Boundaries

The boundaries of the Lighting Zones are illustrated in Division 10-90.50 (Lighting Zone Map).

C. Split Parcels

A parcel located in more than one of the described zones shall be considered to be only in the more restrictive Lighting Zone.

10-50.70.050 General Requirements - All Lighting Zones

A. Preferred Source - Low-Pressure Sodium (LPS) lamps and Narrow-Spectrum Amber LEDs

Due to their high energy efficiency, long life, and spectral characteristics, Low-Pressure Sodium (LPS) lamps are the preferred illumination source throughout the City. Their use is encouraged, when not required, for outdoor illumination whenever their use would not be detrimental to the use of the property. In all applications where LPS lighting is required or preferred, an acceptable alternative is Narrow-Spectrum Amber LEDs.

B. Lighting Classes

- Class 1 Lighting is lighting used for applications where color rendition is required to preserve the effectiveness of an activity. Recognized Class 1 Lighting applications include only the following. Application of Class 1 Lighting standards to uses not included in this list requires a finding by the Director of the essential nature of color rendition to preserve the effectiveness of the activity.
 - a. Outdoor sales areas, including service station canopies;
 - b. Primary customer building entry/exit areas (does not include service or emergency entry/exits);

- c. Outdoor seating areas at restaurants;
- d. Outdoor assembly or repair areas where assembly or repair work occurs at night on a regularly scheduled basis;
- e. Outdoor recreational field/track/arena areas; and
- f. External and internal lighting for signs.
- 2. Class 2 Lighting is lighting used for applications where general illumination for safety or security is the primary concern.
 - a. Examples of Class 2 Lighting applications include the following:
 - (1) Pedestrian walkways and driveways;
 - (2) Parking lots; and
 - (3) Outdoor security.
 - b. Low-Pressure Sodium (LPS) lamps or Narrow-Spectrum Amber LEDs are required in all Class 2 Lighting applications, except that up to 10 percent of all lighting of all classes may be non-LPS lighting as noted in Table A (Maximum Total Outdoor Light Output Standards).
- 3. Class 3 Lighting is outdoor lighting used for decorative purposes.
 - a. Examples of Class 3 Lighting applications include the following:
 - (1) Architectural illumination;
 - (2) Flag and monument lighting; and
 - (3) Landscape lighting and the illumination of trees, shrubs, or other vegetation.
 - b. Class 3 lighting Fixtures shall be included in the total lumen calculations for the site. If decorative lighting is applied to the exterior wall of a building using LED lights or similar technologies that allow for the color of the light to change, only one color change every two minutes is permitted.
- 4. The use of solar powered light systems as a light source in all Lighting Classes is appropriate.

C. Total Outdoor Light Output

1. Total Outdoor Light Output, excluding streetlights and pedestrian lighting used to illuminate public rights-of-way and any interior lighting shall not exceed the following limits averaged over the entire

development (values listed are total initial lamp lumens per acre and per residence).

Table 10-50.70.050.A: Maximum Total Outdoor Light Output Standards						
Land Use	Zone I	Zone 2	Zone 3			
Commercial, Industrial, and Multi-family Residential (lumens per net acre)						
Total (Fully Shielded and Partially Shielded)	25,000	50,000	100,000			
Partially Shielded only	0	5,500	5,500			
Non-LPS	2,500	5,000	10,000			
Single-family Residential (lumens per parcel inclusive of accessory structures)						
Total (Fully Shielded and Partially Shielded)	10,000	10,000	10,000			
Partially Shielded only	0	4,000	4,000			

- For determining compliance with this Section, light emitted from outdoor lighting is to be included in the Total Outdoor Light Output as follows (see Figure A):
 - a. Light fixtures installed as described below shall be included in the Total Outdoor Light Output by adding 100 percent of the initial lumen outputs of the lamps used:
 - (1) All unshielded or partially shielded fixtures, regardless of location;
 - (2) Light fixtures installed on poles (such as parking lot light fixtures);
 - (3) Light fixtures installed on the side of buildings or other structures but not located as described in paragraphs b. or c. below; and
 - (4) Light fixtures installed within open parking garages, or under canopies, building overhangs, or roof eaves that are not fully shielded or are fully shielded but not located as described in paragraphs b. or c. below.
 - b. Fully shielded light fixtures installed as described below shall be included in the Total Outdoor Light Output by adding only 25 percent of the initial lumen outputs of the lamps used:
 - (1) Fully shielded light fixtures located within open parking garages, or located under canopies, building overhangs, or roof eaves, where all parts of the light fixture are located at least five feet but less than 10 feet from the nearest outdoor opening, canopy, or overhang edge.

- c. Fully shielded light fixtures installed as described below shall be included in the Total Outdoor Light Output by adding only 10 percent of the initial lumen outputs of the lamps used:
 - (1) Fully shielded light fixtures located within open parking garages, or located under canopies, building overhangs, or roof eaves, where all parts of the light fixture are located 10 feet or more from the nearest outdoor opening, canopy, or overhang edge.

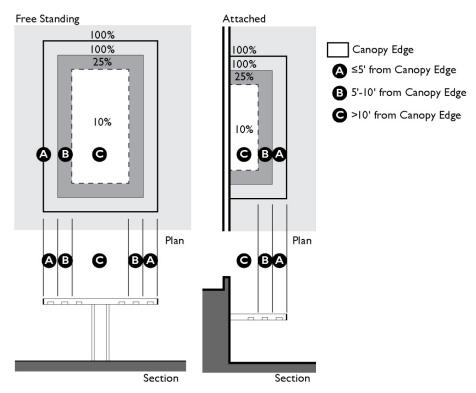


Figure A. Elevation and section views of a freestanding and attached canopy or overhang, showing fixture location and initial lamp output percentage counted toward total outdoor light output

D. Lamp Source and Shielding:

The standards provided in Table B (Lamp Type and Shielding Standards) shall apply:

Table 10-50.70.050.B: Lamp Type and Shielding Standards					
Lamp Type and Lighting Class	Zone I	Zone 2	Zone 3		
Non-Residential ² Outdoor Lighting					
Class I Lighting (Color Rendition):					
All lamp types and outputs	FS	FS	FS		
Class 2 Lighting (General Illumination):					
All lamp types and outputs	FS	FS	FS		
Class 3 Lighting (Decorative):					
All lamp types 2,500 lumens ¹ or above per Fixture	X	Α	FS		
All lamp types below 2,500 lumens ¹ per Fixture	FS	A^3	A^3		
Residential ² Outdoor Lighting					
Class I-3 Lighting					
Lighting (Color Rendition):					
All lamp types 1,000 lumens or above per Fixture	FS	FS	FS		
All lamp types below 1,000 lumens per Fixture	FS	A^3	A^3		
Кеу:					

FS = Allowed; Only Fully Shield Fixtures permitted

A = Allowed; Fully Shielded Fixtures preferred, and Partially Shielded Fixtures permitted subject to the amounts listed in Table A (Maximum Total Outdoor Light Output Standards).

X = Prohibited

End Notes

Examples of lamp types of 2,500 and 1,000 lumens and below for commercial and residential applications respectively are provided in Table C (Lamp Type and Wattage with Outputs below 2,500 and 1,000 lumens). The acceptability of a particular lamp is decided by lumen output, not wattage. The values listed are approximate, and the manufacturer's specifications for a particular lamp must be checked.

²For purposes of this subsection, residential refers to property developed primarily for residential purposes, including single-family residences, manufactured homes, duplexes, and triplexes as well as multi-family (i.e. apartment, condominium, townhome) uses. Non-residential uses include all other uses.

³For purposes of determining total light output from a light fixture, lighting assemblies which include multiple unshielded or partially shielded fixtures or lamps on a single pole shall be considered as a single fixture (see Figure B). Partially shielded lighting is limited to the amounts listed in Table A (Maximum Total Outdoor Light Output Standards).

Table 10-50.70.050.C: Lamp Type and Wattage with outputs below 2,500 and 1,000 lumens				
Lamp Type 2500 Im (Commercial and Industrial)		1000 lm (Residential)		
Standard incandescent and less	100 watt	60 watt		
Tungsten-halogen (quartz) and less	100 watt	60 watt		
Fluorescent and less	25 watt	15 watt		
Compact Fluorescent and less	26 watt	13 watt		

No available data for High-Pressure Sodium or Metal Halide lamps

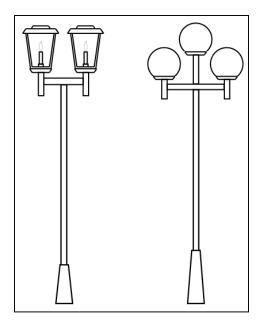


Figure B. Light Fixture with Multiple Unshielded Fixtures or Lamps

E. Effective Shielding

All light fixtures that are required to be fully shielded shall be installed in such a manner that the shielding satisfies the definition of a fully shielded fixture.

F. Light Trespass Standard

- 1. All light fixtures, including security lighting, shall be located, aimed and shielded so that the direct illumination from the fixture shall be confined to the property boundaries of the source.
- 2. Any privately or publicly owned outdoor light fixture with a lamp of initial output over 10,000 lumens located within 50 feet of any residential (including multi-family residential) property or public right-of-way shall utilize an internal or external shield, with the light fixture and shield oriented to minimize light trespass over the adjacent property or right-of-

way line. If an external shield is used, its surface must be painted black to minimize reflections (Figure C).

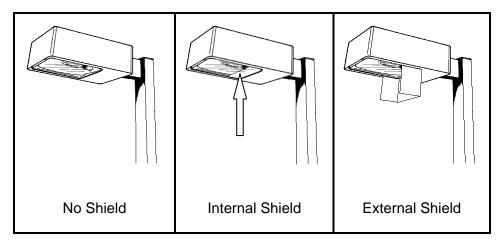


Figure C. Shielding Configurations

G. Motion Sensing Light Fixtures

Motion sensing light fixtures shall be fully shielded.

H. Time Limits for Outdoor Lighting

All outdoor Class 1 and Class 3 lighting, and outdoor Class 2 lighting located more than 50 feet from any building or outdoor product display or storage area shall be turned off at the times listed in Table D (Time Limits for Outdoor Lighting), or no later than 30 minutes after the business closes, whichever is later, and remain off for the remainder of the night or until the business reopens. Decorative holiday lights are exempt in accordance with Section 10-50.70.080.D, and outdoor recreation facilities are exempt in accordance with Section 10-50.70.060. B.

Table 10-50.70.050.D: Time Limits for Outdoor Lighting				
Zone I Zone 2 Zone 3				
Time limit when outdoor lights must be turned off	9:00 p.m.	11:00 p.m.	11:00 p.m.	

I. Sign Illumination

Standards for external and internal sign illumination are provided in Division 10-50.100 (Sign Standards). Lighting used for the external illumination of signs is included toward the Total Outdoor Light Output standards of Subsection C.

J. Neon Building Lighting

Neon building lighting is included in the Total Outdoor Light Output calculations for the site. Lumens for neon lighting are calculated on a per foot basis, rather than per "fixture." Any unshielded neon lighting is limited by the unshielded lighting limits of Subsection C.

K. Multi-class Lighting

Multi-class lighting must either conform to the lamp-type and shielding requirements of the strictest included class as shown in Table A (Maximum Total Outdoor Light Output Standards) and Table B (Lamp Type and Shielding Standards), or conform to the time limitations of the least restrictive included class as shown in Table D (Time Limits for Outdoor Lighting).

L. Internally Illuminated Architectural Elements

Any architectural element including walls or portions of buildings that are internally illuminated and that is not a sign or fenestration (windows or doors) shall have 100 percent of the initial lamp output of all lamps used to provide such illumination counted toward unshielded lighting for the purposes of calculating Total Outdoor Light Output for the site and is subject to the standards of Subsection C.

M. Architectural/Landscape Lighting

Architectural lighting used to illuminate the wall of a building or landscape lighting used to illuminate trees or other landscape elements is permitted subject to the following:

- 1. Architectural and landscape lighting that is directed downward onto a wall, tree or other landscape feature shall be included in the Total Outdoor Light Output standards provided in Table A (Maximum Total Outdoor Light Output Standards), based on whether a fully shielded or partially shielded light fixture is used; and
- 2. Architectural and landscape lighting that is directed upward onto a wall, tree or other landscape feature shall be included in the lumen caps for unshielded Fixtures provided in Table A (Maximum Total Outdoor Light Output Standards).

N. Emergency Lighting

Emergency lighting that is only turned on in the event of a power failure or when an alarm is activated is permitted in all lighting zones and is excluded from the total lumen calculations for the site.

O. Use of Mercury Vapor Light Fixtures

- 1. No new mercury vapor outdoor light fixtures shall be installed after the effective date of this Zoning Code. No replacement equipment other than bulbs for mercury vapor lighting fixtures shall be sold in the State after January 1, 1991 and the use of mercury vapor light fixtures is prohibited after January 1, 2011.
- 2. The provisions of this section shall not apply to outdoor light systems erected prior to 1950.

10-50.70.060 Special Uses

A. Service Station Canopy Lighting

1. Lighting Class

Lighting for service station canopies shall be considered Class 1 Lighting.

2. Shielding

All light fixtures mounted on or recessed into the lower surface of service station canopies shall be fully shielded and utilize flat lenses. Such shielding must be provided by the fixture itself; shielding by surrounding structures such as canopy edges is not permitted.

3. Total Under-Canopy Output

The total light output used under service station canopies, defined as the sum of all under-canopy initial lamp outputs in lumens, shall not exceed 40 lumens per square foot of canopy in Lighting Zone 2 and 3, and shall not exceed 20 lumens per square foot in Lighting Zone 1 (note: these values are not foot-candle illuminances).

4. All lighting mounted under the canopy, including but not limited to light fixtures mounted on or recessed into the lower surface of the canopy and any lighting within signage (but not including any lamps mounted within the pumps and used to illuminate information indicating the total cost of such items as fuel pumped and price per gallon), shall be included in the Total Outdoor Light Output for the site and is subject to the standards of Section 10-50.70.050.C.

B. Outdoor Recreation Facilities

1. Lighting Class

Lighting for field/track/arena areas only shall be considered Class 1.

2. Lumen Cap Exemption

- a. In Lighting Zone 1, lighting for field/track/arena areas is subject to the lumens per acre limit set in Section 10-50.70.050.C;
- b. In Lighting Zones 2 and 3, lighting for field/track/arena areas is not subject to the lumens per acre limit set in Section 10-50.70.050.C; and,
- c. Illumination levels for the field/track/arena shall be designed to be no higher than recommended for Class IV play, as defined by the Illuminating Engineering Society of North America publication IESNA RP-06-01.

3. Shielding

Fixtures used for field/track/arena areas shall be fully shielded.

4. Time Limits

No illuminated sports facility shall be illuminated after the time limits listed in Table 10-50.70.050.D (Time Limits for Outdoor Lighting), except to conclude a scheduled recreational or sporting event in progress prior to the time limitation.

5. Certification

Lighting systems for outdoor recreational facilities shall be designed and certified by an engineer registered in Arizona as conforming to all applicable restrictions of this Code before construction commences. Further, after installation is complete, the system shall be again certified by a registered engineer to verify that the installation is consistent with the certified design.

C. Street Lighting

- 1. Standards for street lighting installed on public rights-of-way are found in the City Engineering Standards, Title 12 (Street Lighting).
- 2. Street lighting installed on private rights-of-way shall be included within the Total Outdoor Light Output for the development.

D. Parking Garages

1. Lighting Class

Lighting installed for general illumination of parking areas within parking garages, where the parking areas are open to the outside, shall be considered Class 2.

2. Inclusion Toward Total Outdoor Light Output

The lumen output of lamps mounted on or within open parking garages shall be included toward the Total Outdoor Light Output standards in Section 10-50.70.050.C.

3. Shielding

All light fixtures used on open parking garages, including those mounted to the ceilings over the parking decks, shall be fully shielded.

E. Outdoor Display Lots

1. Lighting Class

Outdoor lighting for outdoor display lots shall be considered Class 1 lighting, and shall conform to applicable lumens per net acre limits applied to the entire parcel.

2. Lighting Time Limitations

Outdoor display lot lighting shall conform to the hours of operation as established under Class 1 Lighting Standards. Any lighting on after the time limitations shall be considered Class 2 lighting and shall conform to all restrictions of this Division applicable to this class.

3. Shielding

All light fixtures used in outdoor display lots shall be fully shielded and be aimed so that the direct illumination shall be confined to the property boundaries of the source.

F. Temporary Lighting

Temporary lighting which does not conform to the provisions of this Division may be approved by the Director subject to the approval of an Outdoor Lighting Permit in accordance with the provisions of Section 10-20.40.100 (Outdoor Lighting Permits). Temporary lighting is intended for uses which by their nature are of limited duration, including for example, holiday decorations, civic events or construction projects.

10-50.70.070 Prohibited Outdoor Lighting

The following types of outdoor lighting are prohibited:

- A. Outdoor floodlighting by flood light projection above the horizontal plane.
- B. Search lights, flood lights, laser source lights, or any similar high intensity light, except in emergencies by police, fire, or medical personnel or at their direction; or for meteorological data gathering purposes.
- C. Any lighting device located on the exterior of a building or on the inside of a window which is visible beyond the boundaries of the lot or parcel with intermittent fading, flashing, blinking, rotating or strobe light illumination.

10-50.70.080 Exceptions

A. Airport Lighting

Required navigational lighting systems at airports for the safe and efficient movement of aircraft during flight, take off, landing and taxiing is exempt from the provisions of this Division. Lighting used for illumination of aircraft loading, unloading, and servicing areas is exempt from the lumens per acre limits provided in Section 10-50.70.050.C, although it must conform to all other requirements of this Division. All other outdoor lighting at airport facilities shall comply with the provisions of this Division.

B. Infrared Security Lighting

Lights emitting infrared radiation used for remote security surveillance systems is permitted in all zones with the following restrictions:

- 1. Fixed lights must be fully shielded; and
- 2. Movable lights, such as spot lights attached to infrared sensitive cameras, must be mounted such that the lights cannot be directed higher than 20 degrees below the horizontal, measured from the center of the light beam.

C. Emergency Lighting by Emergency Services

Searchlights, floodlights, laser source lights, strobe or flashing lights, or any similar high intensity lights are permitted when used in emergencies by police, fire, medical, or utility personnel or at their direction.

D. Holiday Decorations

In all lighting zones low voltage holiday decorations may be unshielded and remain on all night from November 15 to January 15.

E. Solar-powered Lighting

Solar-powered lights of 5 watts or less per fixture used in residential landscaping applications and to illuminate walkways are exempt from applicable lamp type and shielding standards and are excluded from the total lumen calculations for the site.

F. Construction and Renovation of Municipal Facilities

All outdoor lighting used for construction or major renovation of municipal buildings, structures and facilities is exempt from the provisions of this Division.

10-50.70.090 Nonconforming Outdoor Lighting

Section 10-20.60.080 (Nonconforming Outdoor Lighting) provides the standards and regulations for nonconforming outdoor lighting.

10-50.70.100 Violations and Enforcement

- A. It shall be unlawful to install or operate an outdoor light fixture in violation of this Division. Any person violating any provisions of this Division shall be guilty of a misdemeanor. Each and every day during which the illegal erection, maintenance, and use continues shall be considered a separate offense.
- B. The requirements of this Division shall be enforced in compliance with the enforcement provisions of Division 10-20.110 (Enforcement).

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Division 10-50.80: Parking Standards

Sections:

10-50.80.010	Purpose
10-50.80.020	Applicability
10-50.80.030	General Parking Standards
10-50.80.040	Number of Motor Vehicle Parking Spaces Required
10-50.80.050	Bicycle Parking
10-50.80.060	Parking Adjustments
10-50.80.070	Parking Alternatives
10-50.80.080	Parking Spaces, Parking Lot Design and Layout
10-50.80.090	Development and Maintenance

10-50.80.010 Purpose

The purpose of this Division is to regulate and ensure the provision of adequate parking and access for motor vehicles and bicycles. The Division also provides options for the adjustment of parking requirements and the provision of parking alternatives. These standards ensure that the parking needs of new land uses and development are met while being designed and located in a manner consistent with the desired character and development patterns of the community and as outlined in the General Plan.

10-50.80.020 Applicability

A. Parking Space Requirement

On-site parking shall be required in all zones, and shall apply to the following:

- 1. New development;
- 2. An enclosed new building addition that results in an increase in the gross floor area of 25 percent of more;
- 3. Changes in land use;
- 4. Changes in intensity of buildings or structures made subsequent to the effective date of this Zoning Code of 25 percent or more of:
 - a. Gross floor area;
 - b. Seating capacity;
 - c. Dwelling units;
 - d. Parking spaces; and/or

10-50.80.020 Parking Standards

e. Other units of measurement listed in Table 10-50.80.040.A (Motor Vehicle Parking Spaces Required); and,

5. An increase in floor area of a new addition or building within the Commercial Business (CB) Zone to the extent that the new building's or new addition's gross floor area that exceeds the site's previous existing building's gross floor area, excluding open decks and patios. For any change of use without an increase in floor area within the CB Zone, even if such change of use increases the demand for parking (such as a change from a retail use to a bar or restaurant use), additional parking otherwise required for such change of use is not required.

B. Nonconforming Uses, Structures or Lots

When a nonconforming use, structure, or lot is abandoned for a period of 180 consecutive days and then changed to a new use according to the requirements of Section 10-20.60.050 (Loss of Nonconforming Status) and Section 10-20-60.100 (Nonconforming Parking) of this Code, then parking facilities shall be provided for the entire building, structure, or premises, to the maximum extent feasible as determined by the Director.

C. Location, Design, Landscaping

Parking spaces being provided as a requirement of this Division or spaces being voluntarily provided shall meet the location, design, landscaping, and improvement requirements found in this Division, Division 10-40.40 (Transect Zones), and Division 10-50.60 (Landscaping Standards).

D. Addition of Residential Units to an Existing Dwelling

Construction of a duplex, a second (attached) dwelling, or a third dwelling (attached or detached) on the same lot as an existing dwelling, where permitted, shall be subject to the requirements of this Division, as well as the pertinent Sections of Division 10-40.40 (Transect Zones) and Division 10-50.60 (Landscaping Standards), for the entire property.

E. Timing of Improvements

A land use shall not be commenced and a structure shall not be occupied until the parking and loading improvements required by this Division are completed and approved by the Director.

F. Exempt

1. Existing Single-Family Dwellings

The standards within this Division shall not apply to existing single-family dwellings as follows:

a. The creation of a second single-family dwelling on the same lot, where permitted, shall require that the parking and access for the second single-family dwelling meet the standards in this division. The parking and access for the original dwelling unit does not have to meet the requirements of this Division; and

b. When more than two single-family dwellings are on the same lot, where permitted, it shall be required that the parking and access for all the dwellings, including existing single-family dwellings, meet the requirements in this Division.

2. Uses Within a Parking Management District

The parking requirements required by this Division shall not apply, except as provided by the parking management district.

10-50.80.030 General Parking Standards

A. General to All Zones

1. Parking for Accessory Uses in Residential Zones

Required off-street parking facilities shall be used for the parking of bicycles, passenger motor vehicles or other non-commercial motor vehicles owned by occupants of the dwelling structures to which such facilities are accessory, or for the parking of passenger motor vehicles and bicycles by guests of the occupants. For single-family dwellings, this includes the driveways to the parking facilities.

2. Parking of Commercial Vehicles in Residential Zones

Under no circumstances shall required off-street parking facilities accessory to residential structures be used for the storage or parking of commercial vehicles associated with a business operation other than for a permitted home occupation at the same location, or a commercial vehicle owned by the resident that is less than or equal to 14,000 gross vehicle weight rating (GVWR). Such residential parking facilities shall not be used for the parking of motor vehicles belonging to the employees, owners, tenants, visitors, or customers of nearby commercial or manufacturing establishments.

3. Commercial Work on Motor Vehicles

Commercial work of any kind on motor vehicles (e.g. the overhaul of engines) shall not be permitted in conjunction with accessory off-street parking.

4. Storage of Unregistered or Inoperable Motor Vehicles

No more than one unregistered or inoperable motor vehicle shall be stored on any residentially zoned lot or parcel of land, and no such unregistered or inoperable vehicle shall be stored within the front setback.

5. Reduction of Parking

Required off-street parking shall not be reduced below the requirements of this Division. Existing parking that is determined to be non-conforming in accordance with Division 10-20.60 (Nonconforming Provisions) because less than the required number of spaces are

10-50.80.040 Parking Standards

provided, shall not be further reduced from the number of parking spaces available on the effective date of this Zoning Code.

6. **Parking of Recreational Vehicles, Campers, and Other Similar Vehicles** Unless provided otherwise, the parking and/or storage of recreational vehicles, campers, camping trailers, utility trailers, boats, and similar vehicles shall be regulated in accordance with Section 10-50.80.080.L.

10-50.80.040 Number of Motor Vehicle Parking Spaces Required

A. Applicable to All Zones

1. Calculations

Any fraction greater than or equal to 0.50 shall be rounded up to nearest whole number. No additional space shall be required for a fractional unit of less than 0.50.

2. Square Feet

In any case where Table A (Number of Motor Vehicle Parking Spaces Required) expresses a parking requirement based on floor area in square feet (sf) the measurement shall mean square feet of gross floor area, unless stated otherwise.

3. Number of Employees

In any case where Table A (Number of Motor Vehicle Parking Spaces Required) expresses a parking requirement based on number of employees, the number of employees shall be calculated based on the largest work shift.

B. Applicable to Transect Zones

- 1. For transect zones, the number of required motor vehicle spaces for certain uses is regulated in Division 10-40.40 (Transect Zones). For those regulated uses, the requirements of Table A (Number of Motor Vehicle Parking Spaces Required) shall not apply. For all other uses, the requirements of Table A (Number of Motor Vehicle Parking Spaces Required) shall apply.
- 2. Structures for recreation, education and assembly uses of less than 5,000 square feet shall not be required to provide parking spaces. For structures for such uses that are greater than 5,000 square feet, the requirements of Table A (Number of Motor Vehicle Parking Spaces Required) shall apply, except the parking requirement may be reduced by one of the following:
 - a. Parking requirements based on gross square feet may take a reduction of 5,000 sf; or
 - b. Parking requirements not based on gross square feet may take a reduction of up to 12 spaces.

3. Tandem parking may count towards the required parking for an individual residential unit.

4. On-street parking spaces located along the frontage of a parcel may count towards the required residential guest parking and non-residential use parking requirements.

C. General to All Zones

1. Maximum Number of Parking Spaces

Developments over 10,000 square feet in floor area or containing 25 or more residential units shall not exceed the minimum number of parking spaces by more than five percent.

2. Motor Vehicle Parking Spaces Required

The number of parking spaces required shall be determined from Table A (Number of Motor Vehicle Parking Spaces Required) below. Uses not specifically listed in Table A shall use the parking requirement for the most similar use, or as determined by the Director.

10-50.80.040 Parking Standards

Table 10-50.80.040.A: Number of Motor Vehicle Parking Spaces Required			
Use	lumber of Required Spaces		
Residential			
Accessory Dwelling Units	1.0		
Market Rate (all dwelling classifications)			
Studio	1.25		
I Bedroom	1.5		
2+ Bedroom	2.0		
Guest Spaces for Multi-Family Dwelling (Includes boats and RVs)	0.25 per each 2+ bedroom unit		
Affordable (All Dwelling Classifications)			
Studio	1.0		
I Bedroom	1.0		
2-3 Bedroom	1.5		
4+ Bedrooms	2.0		
Guest Spaces for Multi-Family Dwelling (Includes boats and RVs)	0.25 per each 2+ bedroom units		
Co-Housing Co-Housing	I per bedroom		
Congregate Care Facility	0.75 per unit plus		
	I per employee		
Institutional Residential			
Convents or Monasteries	I per 6 beds plus I per employee		
	In addition, if a chapel is open to the public, the parking requirements for "Meeting Facilities, Public or Private" shall apply.		
All Other Institutional Residential Uses (Listed in the	I per 6 beds plus		
Definition)	I per employee		
Rooming and Boarding Facilities			
Private Rooms	I per bedroom or sleeping room plus		
	I for owner or manager		
No Private Rooms	I per 100 gsf plus		
	I for owner or manager		

Key sf square foot gsf gross square feet

Table 10-50.80.040.A: Number of Motor Vehicle Parking Spaces Required			
Use	Number of Required Spaces		
Live/Work	See residential parking requirement plus, I per 300 gsf of work area		
Manufactured Homes	2 per unit; and I guest parking space per 8 manufactured home sites		
Recreation, Education & Assembly			
Commercial Campgrounds	I per camp vehicle or site plus I per employee		
Meeting Facilities, Public or Private	I per employee plus the greater of either I per 250 gsf or I per 4 persons at maximum capacity		
Commercial Recreation Facilities, Indoor or Outdoor			
Bowling Alleys	I per lane plus I per 6 persons at maximum capacity		
Golf Courses and Related Facilities	4 per hole plus I per employee		
Recreational Vehicle Park	I per recreational vehicle and/or travel trailer plus required spaces for accessory uses		
Recreation Centers	I per 250 gsf, or I per 4 patrons at max. capacity, whichever is greater; plus I per employee		
Skating Rinks: Ice or Roller	I per 300 gsf		
Swimming Facility	I per 75 gsf of water area		
Tennis, Racquetball, or Handball Courts	2 per court		
Other:	I per 4 persons at maximum capacity		
Meeting Facilities, Public or Private	I per 4 persons at maximum capacity		
Libraries, Museums	I per employee plus the greater of either I per 250 gsf or I per 4 persons at maximum capacity		
Theaters	I per 4 persons at maximum capacity		

Key	sf	square foot	gsf	gross square feet
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10-50.80.040 Parking Standards

Table 10-50.80.040.A: Number of Motor Vehi	icle Parking Spaces Required
Use	Number of Required Spaces
Schools, Private	
Grades K-8	I per employee plus I per 2 classrooms
Grades 9-12	I per employee plus I per 4 students at capacity class attendance
Trade	I per employee plus I per 3 students at capacity class attendance
Universities and Colleges	I per employee plus I per 2 students at capacity class attendance
Youth Recreation Camp	I per employee on the largest work shift plus I per camp vehicle
Other: Uses Not Listed	I per employee plus I per 300 gsf
Retail Trade	
Bars/Taverns	I per 50 gsf plus I per employee
Convenience Groceries	I per employee plus I per 300 gsf
Drive-Through Uses	5 stacking spaces per drive-through, including service window and menu board areas, plus base use requirement
Furniture and/or Major Appliance Stores	I per 600 gsf
General Retail Business	I per 300 gsf
Markets	
Neighborhood, < 5,000 gsf	I per 400 gsf, excluding storage areas
Grocery or Supermarket, ≥ 5,000 gsf	I per 250 gsf, excluding storage areas
Restaurants or Cafés	I per employee plus I per 100 gsf

	Parking Spaces Required
Use	Number of Required Spaces
Shopping Centers	
< 100,000 gsf with Restaurant(s) Sharing Parking	I per 300 gsf
< 100,000 gsf with no Restaurant(s) or Restaurant Having Separate Counted Parking	I per 250 gsf
≥ 100,000 gsf with Restaurant(s) Sharing Parking	I per 250 gsf up to 100,000 gsf plus I per 300 gsf for gsf over 100,000 gsf
≥ 100,000 gsf with no Restaurant(s) or Restaurant Having Separate Counted Parking	I per 300 gsf up to 100,000 gsf plus I per 325 gsf for gsf over 100,000 gsf
Services	
Bed & Breakfast Establishments	2 per dwelling unit plus I per bedroom for rent
Cemeteries	I per employee plus 2 per acre
Day Care/Child Day-Care Facilities	I per employee plus I off-street passenger drop-off/pick-up space per I0 students
Funeral Homes, Chapels, Crematoriums, Mortuaries	I per 4 persons at maximum capacity
General Services	I per 300 gsf
Lodging	I per 3 employees on largest work shift plus I per room or suite for rent plus I per 3 persons at the maximum capacity of each public meeting and/or banquet room
Hospitals	I per 3 employees plus 2 per 3 patient beds
Offices	
General	I per 300 gsf
Medical	I per employee plus 5 per doctor
Personal Services	
Beauty and Barber Shops:	I per employee plus I.5 per hairdresser/barber station
Other	I per 300 gsf

Key	sf s	guare foot	gsf	gross square feet
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10-50.80.040 Parking Standards

Table 10-50.80.040.A: Number of Motor Vehicle Parking Spaces Required			
Use	Number of Required Spaces		
Public Services	I per employee plus I per company vehicle stored or parked on the premises		
Industrial, Manufacturing, Processing & Wholesaling			
Construction Supply Yard	I per 400 gsf customer service area, plus I per 2,000 gsf of warehousing/storage, plus I per employee		
Manufacturing and Processing	I per 600 gsf		
Mini-Storage Warehousing	3 plus I per 100 storage units		
Transportation or Trucking Yards	Parking shall be calculated by individual use, including but not limited to offices for the dispatch areas, warehouses for trans shipment or warehouse type areas, and vehicle repair for service facilities		
Warehousing	I per 2,000 gsf		
Transportation & Infrastructure			
Transportation & Infrastructure Landing Strips and Heliports	I per every aircraft space within the hangars, plus I for each tie-down space, plus I for every 2 employees		
	I for each tie-down space, plus		
Landing Strips and Heliports	I for each tie-down space, plus		
Landing Strips and Heliports Vehicle Sales and Services	I for each tie-down space, plus I for every 2 employees I per employee If a convenience grocery is included, also see "Convenience Groceries" If service bays are included, also see "Auto/Vehicle Repair		
Vehicle Sales and Services Auto Service Stations and Convenience Stores	I for each tie-down space, plus I for every 2 employees I per employee If a convenience grocery is included, also see "Convenience Groceries" If service bays are included, also see "Auto/Vehicle Repair		
Landing Strips and Heliports Vehicle Sales and Services Auto Service Stations and Convenience Stores Auto/Vehicle Repair Garages	I for each tie-down space, plus I for every 2 employees I per employee If a convenience grocery is included, also see "Convenience Groceries" If service bays are included, also see "Auto/Vehicle Repair Garages" 2.5 per repair or maintenance bay		

Table 10-50.80.040.A: Number of Motor Vehicle Parking Spaces Required			
Use	Number of Required Spaces		
Car Washes	I.5 per employee plus Drive-through parking requirement		
	Each wash rack shall be considered a drive-through and shall meet the parking requirements for a drive-through.		
Urban Agriculture			
Nurseries	I per 300 interior sf plus		
	I per I,000 outdoor sf,		
	plus I per employee		

10-50.80.050 Bicycle Parking

A. Applicability

- 1. The following regulations are applicable whenever the provisions of Section 10-50.80.020 (Applicability) have been met.
- 2. Bicycle parking is not required for single-family residential developments and uses.

B. Required Spaces

- 1. Two bicycle parking spaces, or five percent of required off-street parking spaces, whichever is greater, are required for all uses other than single-family residential uses.
- 2. Bicycle spaces shall be provided in accordance with the following requirements:
 - a. Bicycle parking shall consist of either a lockable enclosure (locker) in which the bicycle is stored or a rack to which the bicycle can be locked;
 - b. Lockers and racks shall be securely anchored to the pavement or a structure;
 - c. Racks shall be designed and installed to permit the frame and one or both wheels to be secure;
 - d. Areas containing bicycle spaces shall be surfaced with impervious surfaces such as concrete or pavers. Pervious pavements or gravel may be used where appropriate as determined by the Director;

10-50.80.060 Parking Standards

e. When located within a parking area: curbs, fences, planter areas, bumpers, or similar barriers shall be installed and maintained for the mutual protection of bikes, motor vehicles, and pedestrians, unless determined by the Director to be unnecessary; and,

f. Bicycle parking shall be placed in a convenient, highly-visible, active, and well-lit location not more than 100 feet walking distance from the main entrance, but shall not interfere with pedestrian movements.

C. Motor Vehicle Reduction

The Director may allow a reduction of motor vehicle parking spaces as established in Section 10-50.80.060.D.

D. Bicycle Parking Space Dimensions

All bicycle parking shall meet the following minimum dimensions:

- 1. Each bicycle parking space shall include a minimum area of 72 inches in length and 24 inches in width that is clear of obstructions;
- 2. No part of the rack shall be located closer than 30 inches to a wall or other obstruction;
- 3. The front or back of the rack shall be located no less than 48 inches from a sidewalk or pedestrian way; and,
- 4. A minimum of 30 inches shall be provided between adjoining racks.

10-50.80.060 Parking Adjustments

In the case that more than one parking adjustment may apply, for example as a result of allowed reductions for affordable housing (See Division 10-30.20 (Affordable Housing Incentives), reductions for bikes racks, or any other reduction authorized by this Code, the cumulative parking adjustment shall not exceed 20 percent. However, in multi-family residential developments no less than one parking space per residential unit shall be required.

A. Transit

1. General to All Zones

A parking reduction of up to 10 percent may be approved by the Director for any use within one-quarter of a mile of a bus stop.

2. Specific to Transect Zones

Required parking spaces may be reduced by up to 20 percent maximum, as approved by the Director, for any use located within one-quarter of a mile of a bus stop or other transit stop.

B. Shared On-Site Parking

Where two or more uses on the same site or adjacent parcels have distinct and differing peak parking usage periods (e.g., a theater and a bank), a reduction in the required number of parking spaces as determined by the Director may be allowed in the following manner:

- 1. The reduction in number of required parking spaces shall be based on a parking demand study. The parking demand study shall be in accordance with established professional practices.
- 2. Approval shall also require a recorded covenant running with the land, recorded by the owner of the parking lot, guaranteeing that the required parking will be maintained exclusively for the uses served and remain for the duration of the use.

C. Parking Demand Study - Reduced Parking

Based on the completion and submittal of a parking demand study, the Director may approve a reduction in the amount of parking from that otherwise required by this Division. The parking demand study shall be in accordance with established professional practices.

D. Traffic Management Plan Parking Reduction

The Director shall have the ability to reduce the parking requirements for office and other uses in Section 10-50.80.040 (Number of Motor vehicle Parking Spaces Required). A traffic management plan shall be submitted with an application for Site Plan Review. A reduction may be granted if the following standards are met:

- 1. The amount of the reduction shall be no more than 90 percent of the proposed reduction in employee motor vehicle trips.
- 2. The buildings shall have a single user/owner who can effectively exercise control over compliance with the plan.
- 3. The traffic management plan shall be submitted by a registered traffic engineer and shall include data on the effectiveness of similar plans elsewhere.
- 4. The traffic management plan shall contain information on the strategies, designated parking, incentives, company vehicles, staggered work hours, and information indicating the owner's ability to provide and enforce these elements over time.
- 5. The Director may impose conditions that are needed to ensure the long-term compliance to the plan, including but not limited to a reserve parking area, phasing, or contributions to transit or other alternative means of transportation.

10-50.80.070 Parking Standards

E. Parking Reduction for Forest Resources

The number of parking spaces required for a new development may be reduced by no more than five percent if existing native trees such as Ponderosa pine trees are located within parking areas (but not circulation areas) and these trees are required to be preserved to satisfy the requirements for forest resource protection as defined in Division 10-50.90 (Resource Protection Standards). An applicant shall demonstrate to the satisfaction of the Director that by incorporating these existing native trees within the parking area, adequate measures are taken during construction to ensure that the trees are protected from construction activity.

F. Bicycle Parking Reduction

The Director may allow a reduction of one required motor vehicle parking space for each four bicycle parking spaces provided to a maximum of five percent of the required motor vehicle parking spaces.

10-50.80.070 Parking Alternatives

If a property owner is unable to provide the required parking on-site, the owner may at the discretion of the Director satisfy the parking requirements by one or more alternatives in this section.

A. Off-site Parking

The location of off-premises parking facilities in relation to the use served are described in this Subsection. All distances specified shall be between the closest edge of such parking facilities to the closest edge of the site being served.

1. General to All Zones

- a. Pedestrian access between the use or the site and the off-premise parking area shall be via paved sidewalk or walkway.
- b. The owner shall provide a recorded parking agreement reflecting the arrangement with the other site.
- c. If the off-premise parking facility is shared, the Director may allow a reduction in the following manner:
 - (1) The reduction in number of required parking spaces shall be based on a parking demand study. The parking demand study shall be in accordance with established professional practices.
 - (2) The shared parking arrangement shall require a recorded covenant running with the land, recorded by the owner of the parking lot, guaranteeing that the required parking will be maintained exclusively for the uses served and remain for the duration of the use.

d. Required parking may be provided in off-street parking facilities on another property within 600 feet of the site proposed for development.

2. Specific to Non-Transect Zones

Off-site parking facilities for a non-residential use shall not be located in a residential zone.

B. In-Lieu Fee

The owner of any property upon which a development is proposed may pay an in-lieu parking fee if the City approves it as part of the site plan review. A request to pay the in-lieu fee for more than 15 parking spaces must be approved by the Council. The Council shall make the following findings before approving any in-lieu fee proposal:

- 1. The development is within a parking management district;
- 2. There is available or planned public parking capacity to offset this demand;
- 3. The public parking will be made available within a reasonable time period of the approval of this development; and,
- 4. The fee option is available only if an existing or planned parking facility exists within 600 feet of the site, or within a distance set by the parking management district. The fee shall be the current value of land and parking construction costs per space needed, as determined by an adopted parking management plan.

10-50.80.080 Parking Spaces, Parking Lot Design and Layout

A. Access

The following regulations are applicable to off-street parking lot access design and include parking for single-family residences unless modified by Chapter 10-40 (Specific to Zones).

- Each required off-street parking space shall open directly onto an aisle or driveway as specified in Table A (Minimum Dimensional Requirements). All off-street parking facilities shall be designed with an appropriate means of vehicular access to a street or to an alley to cause the least interference with traffic movements.
- 2. Parking spaces in any parking lot or parking structure for any use other than single-family dwellings shall not be designed or located so as to permit a vehicle to enter or exit a parking space directly from a public thoroughfare. Driveways to the public thoroughfares shall be by forward motion of the vehicle. Ingress to and egress from parking spaces shall be from an onsite aisle or driveway. Exception: Parking spaces within lots of

10-50.80.080 Parking Standards

- up to eight spaces may be designed or located so as to permit a vehicle to enter or exit a parking space directly from a public alley or rear lane.
- 3. Driveways from a public thoroughfare to off-street parking areas in all residential zones shall meet the following:
 - a. Driveways shall be a minimum of 10 feet wide; and
 - b. If a driveway serves more than two dwelling units or is longer than 150 feet, the driveway shall have a minimum width and turnaround in accordance with Fire Department requirements and the *Engineering Standards*.

4. Materials

- a. All off-street parking areas and driveways shall be surfaced with materials as approved by the City Engineer and maintained in accordance with the *Engineering Standards* and the *Stormwater Regulations*.
- b. Driveway materials shall extend and include the area between the property line and the street.
- c. In areas where roads are not paved, the requirement for paving a driveway is not required, unless the driveway is required for fire access in accordance with the Fire Code.
- 5. The design and construction of all off-street parking access drives shall meet the requirements of the *Engineering Standards*.

B. Design of Parking Lot

1. Parking spaces shall be designed in accordance with the dimensional requirements provided in Table A (Minimum Dimensional Requirements) and as illustrated in Figure A.

Table 10-50.80.080.A: Minimum Dimensional Requirements					
	Parking	Drive Aisle Width			
Angle ³	Row Depth	One-way	Two-way	Space Width ²	Space Length
	(A)	(B)	(C)	(D)	(E)
Parallel	9'	12'	20'	9'	20'
30°	17'	11'	24'	9'	20'
45°	20'	13'	24'	9'	20'
60°	21'	18'	24'	9'	20'
Perpendicular	18'	14'	24'	9'	18'
Tandem (two spaces)	18'	14'	24'	9'	36'1

End Notes

Paved Parking Space Length (E) may be decreased by up to 1.5' by providing an equivalent vehicle overhang. This reduction may reduce the Parking Row Depth (A) by up to 1.5'; however, such overhangs shall not intrude into any required pedestrian walkways or landscaped areas or buffers.

2. Covered off-street parking spaces shall not be less than 10 feet in width and 20 feet in length, and shall have a minimum vertical clearance of seven feet.

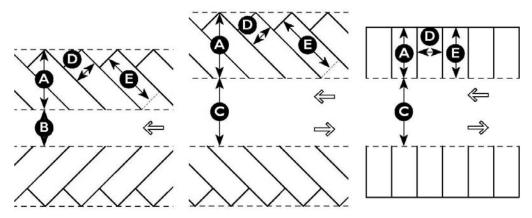


Figure A. Parking Lot Design

C. Parking for Disabled Persons

1. All parking facilities that require parking spaces for disabled persons shall conform to the Americans with Disabilities Act (ADA) and A.R.S. § 28-882. Accessible parking spaces count toward the total parking

²Space width shall be increased by I' when adjacent to any object (including a curb) 6 inches or taller.

³Angles less than 30° can be used if it is shown by the project engineer that the angle and layout can work.

10-50.80.080 Parking Standards

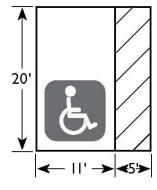
requirement. Where the standards found here conflict with other standards the most restrictive shall apply.

2. Accessible Parking Space Standards

- a. All accessible parking spaces shall be a minimum of 11 feet wide and 20 feet space long. Parking space length may be decreased by up to one and one-half feet by providing an equivalent vehicle overhang;
- b. The passenger loading space or access aisle (i.e. the hatched areas next to an accessible parking space) shall be a minimum of five feet wide;
- c. The slope of the parking space and access aisle shall not exceed 1:50 (two percent) in all directions; and

d. Location

- Accessible parking spaces serving a particular building shall be located on the shortest accessible route of travel from adjacent parking to an accessible entrance;
- (2) In parking facilities that do not serve a particular building, accessible parking shall be located on the shortest accessible route of travel to an accessible pedestrian entrance of the parking facility;
- (3) In buildings with multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located closest to the accessible entrances; and
- (4) Wherever practical, the accessible path of travel should not cross drive aisles and should not go behind parked cars.



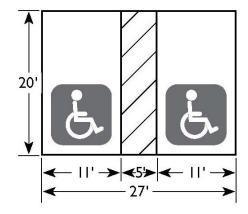


Figure B. Accessible Parking Space Dimensions

3. Number of Accessible Parking Spaces

a. If parking spaces are provided for self-parking by employees and/or visitors for all non-residential uses, then accessible spaces complying with ADA regulations shall be provided in conformance with Table 10-50.80.080.B.

Table 10-50.80.080.B: Min. Number of Accessible Spaces		
Total Parking in Lot	Required Min Number of Accessible Spaces	
I to 20	l l	
21 to 40	2	
41 to 60	3	
61 to 80	4	
81 to 100	5	
101 to 140	6	
141 to 200	7	
201 to 300	8	
301 to 400	9	
401 to 500	10	
501 to 1000	2% of total	
>1,000	20 plus I for each 100 over 1,000	

- b. In apartment developments, at least one accessible parking space or two percent of the total overall number of parking spaces, whichever is greater, shall be reserved.
- 4. Each parking space prescribed in this Section shall be prominently outlined with paint and posted with a permanent sign that is located at least three feet but no more than six feet above grade, that is of a color and design approved by the State of Arizona and that bears the internationally accepted symbol of access and the caption "Reserved Parking".

D. Landscaping

The requirements for landscaping within parking areas are established in Division 10-50.60 (Landscaping Standards).

E. Lighting

The requirements for outdoor lighting within parking areas are established in Division 10-50.70 (Outdoor Lighting Standards).

10-50.80.080 Parking Standards

F. Location

1. Location of required on-site parking in all zones is regulated by setbacks as set forth in Chapter 10-40 (Specific to Zones) and buffers established in Division 10-50.60 (Landscaping Standards).

- 2. In all zones, required parking is not permitted in the required front and exterior side yard setbacks, except as follows:
 - a. Parking in the exterior side yard is permitted when the parking space is a minimum of 20 feet from the exterior side property line and the parking space is located behind the front of the building.
 - b. Within residential zones, parking is permitted within the front yard setback in front of garages and carports as well as in interior and rear setback areas.

G. Screening

For standards related to screening of parking areas see Division 10-50.50 (Fences and Screening).

H. Signs

For standards related to signage see Division 10-50.100 (Sign Standards).

I. Size of Parking Lot

A single parking area shall not exceed one acre in size. Parking areas larger than one acre in size shall be broken down into smaller lots with planted buffers (15 feet minimum depth) between them to minimize the perceived scale of the total field of stalls.

J. Slope of Parking Areas

The surface grade of the parking area shall be designed and constructed in accordance with the *Engineering Standards*.

K. Tandem Parking

Tandem parking is permitted in all zones for single-family residences, Accessory Dwelling Units, and duplexes as follows:

- 1. Both tandem parking spaces satisfy the parking requirement of one residential unit; and,
- 2. Neither of the tandem parking spaces shall be for required accessible parking spaces.

L. Trailers, RV's and Boats

1. Parking or placement of a camping or vacation trailer, recreational vehicle, utility trailer or boat in any zone for residential or storage purposes shall be prohibited except as determined by Subsection 2 below.

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- 2. A camping or vacation trailer, recreation vehicle, utility trailer, or boat may be stored in the rear or interior side setback behind the front of the building, garage, or carport on any parcel in any zone, provided that:
 - a. There is a principal use of the property, to which such storage would be accessory;
 - b. No living quarters shall be maintained or any business conducted within a parked or stored trailer or vehicle; and
 - c. The required parking on the parcel is maintained in addition to the area used for the stored vehicle(s).
- 3. Overnight parking of travel trailers, motor homes, boats or other recreational vehicles is prohibited in commercial zones where camping activities are not specifically permitted by this Zoning Code. Owners of such properties shall be prohibited from posting signs indicating that camping is permitted.

10-50.80.090 Development and Maintenance

A. Construction Specifications

The construction of all off-street parking areas shall meet the requirements of the *Engineering Standards*.

Maintenance

- 1. All parking areas shall be paved, striped, and maintained in a dust-free and litter-free condition at all times.
- 2. A Parking Lot Maintenance Permit shall be required when existing parking areas are repaved, resealed, or restriped. See Section 10-20.40.110 (Parking Lot Maintenance Permit).

10-50.80.090 Parking Standards

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Division 10-50.90: Resource Protection Standards

Sections:

10-50.90.010	Purpose
10-50.90.020	Applicability
10-50.90.030	Priority for Resource Protection
10-50.90.040	Floodplains
10-50.90.050	Steep Slopes
10-50.90.060	Forest
10-50.90.070	Resources Survey Requirements
10-50.90.080	Natural Resources Protection Plan
10-50.90.090	Resource Protection During Construction
10-50.90.100	Activities Allowed in Natural Resources Areas
10-50.90.110	Mitigation
10-50.90.120	Enforcement

10-50.90.010 Purpose

A. Purpose

This Division provides standards for the protection of natural resources, including floodplains, steep slopes, and forest. The requirements of this Division are intended to maintain natural resources and to ensure that proposed development is consistent with the character of its natural surroundings. Developments shall be designed to incorporate native habitat and existing features onsite as they provide important visual, environmental, health and economic benefits. Standards in this Division also protect developed places from natural hazards, such as floods. Division 10-30.60 (Site Planning Design Standards), Appendix 5 (Additional Information Applicable to Division 10-50.90 (Resource Protection Standards)), and Appendix 1.1 (Design Guidelines) provide additional standards, guidelines, and procedures on resource protection and site design.

B. Goals

This Division prescribes standards for the preservation and maintenance of natural resources to achieve the following goals:

- 1. Preserve significant natural resources characterized by unusual terrain, scenic vistas, unique geologic formations, and native vegetation;
- 2. Preserve and enhance the natural environment's, visual character and aesthetic qualities of the City for its citizens' and visitors' enjoyment;
- 3. Preserve and enhance the character and value of all properties;
- 4. Preserve wildlife corridors and habitat;

- 5. Prevent encroachment into floodplains;
- 6. Manage healthy and sustainable forests to reduce fire risk;
- Promote and improve the quality of the environment by enhancing air quality, reducing the amount and rate of storm water runoff, improving storm water runoff quality, and increasing the capacity for groundwater recharge; and
- 8. Establish regulations for the preservation and protection of natural resources before, during, and after the construction and completion of a new development.

10-50.90.020 Applicability

- A. The provisions of this Division apply to proposed development within the Resource Protection Overlay (RPO) Zone (See Section 10-40.50.030 (Overlay Zones)) and Section 10-90.40.050 (Resource Protection Overlay (RPO) Map.) Any perceived conflict between the provisions of this Division and any other section of this Zoning Code shall be resolved in compliance with Chapter 10-20 (Administration, Procedures, and Enforcement). This Division is meant to apply in conjunction with the Flagstaff Fire Department's implementation of the Flagstaff Forest Stewardship Plan. The Forest Stewardship Plan will continue to be applied by the Fire Department in coordination with Community Development Division staff so as not to negatively impact any future development options.
- B. Appendix 5 (Additional Information Applicable to Division 10-50.90 (Resource Protection Standards)) provides useful information on how the Flagstaff Fire Department implements Firewise principles. It also provides a summary and explanation of how to apply the resource protection standards described in this Division.

10-50.90.030 Priority for Resource Protection

A. Purpose

The purpose of prioritizing resources is to help ensure that the requirements of this Division are met and that the highest quality resources are protected as required by the General Plan while at the same time allowing for flexibility in site design. Thus, based on the unique attributes of a particular site, it should be possible to balance the needs for protection of floodplain, slope, and forest resources with an applicant's intent to develop their property. Resource protection is applied on a parcel basis. However, the application of these standards should help maintain the overall health of the natural environment by taking into account the connection of contiguous resources and recognizing wildlife corridors.

B. Priority for Resource Protection

Natural resources and natural features shall be retained and protected in the following order of priority (listed from highest to lowest priority, starting from the top). Resources located in setback areas shall be counted towards areas protected.

1. Floodplains

Rural and urban floodplains as defined in Section 10-50.90.040 (Floodplains).

2. Steep Slopes

Steep slopes as defined in Section 10-50.90.050 (Steep Slopes). Steepest slopes shall be given the highest priority for protection.

3. Forest

Forest as defined in Section 10-50.90.060 (Forest) shall be retained and protected onsite in the following order of priority. The Director and representatives from the Flagstaff Fire Department are available as a resource to assist in the prioritization of resources.

- a. Forest areas that connect to rural and urban floodplains. Areas with the most large trees as determined in Section 10-50.90.070.D shall be given the highest priority;
- b. Forest areas that connect to steep slopes. Areas with the most large trees as determined in Section 10-50.90.070.D shall be given the highest priority;
- c. Ponderosa pines with a diameter at breast height (DBH) of 18 inches or more;
- d. Forest areas that connect to large undeveloped, protected, or vegetated tracts of land within or adjacent to the site. Areas with the most large trees as determined in Section 10-50.90.070.D shall be given the highest priority; and
- e. Native trees and native tree forests (other than Ponderosa pines) as determined in Section 10-50.90.070.D.

4. Other Site Features

In addition to Subsection B, above, when evaluating the areas most suitable for natural resource retention and protection, the City will take into account other onsite features, such as areas of geological interest and rock outcroppings.

10-50.90.040 Floodplains

A. Applicability

Floodplains, as applied in this Division, shall be considered as either urban or rural floodplains as described below.

1. Urban Floodplains

All watercourses and associated floodplains not defined as rural floodplains are urban floodplains. Urban floodplains are typically located in urbanized areas and have typically been altered from their natural state by channelization. Urban floodplains may be altered to address conveyance and erosion concerns, provided that all necessary requirements of the City's *Stormwater Regulations* as administered by the Stormwater Manager are addressed. However, certain urban floodplains that have characteristics conducive to water quality, wildlife habitat, and stream ecology should be preserved. Proposals for any disturbance of these watercourses shall be reviewed by the Stormwater Manager and must address these attributes and provide for mitigation if necessary. Undergrounding of urban floodplains is strongly discouraged and a justification must be provided prior to any approval of undergrounding.

2. Rural Floodplains

Rural floodplains are natural undisturbed open spaces that are unsuitable for development purposes due to periodic flood inundation and the need to preserve the stream corridor for beneficial uses such as the preservation of important ecological resources. Rural floodplains are delineated in Division 10-90.30 (Rural Floodplain Map) and defined as areas of delineated 100-year floodplain that cannot be disturbed or developed except for roadway and utility crossings. Rural floodplains cannot be altered through a floodplain map amendment or revision and must remain undisturbed (i.e. 100 percent protection). The extension of rural floodplains beyond the limits of the delineated floodplains, both upstream and laterally, may be required based on more current or extended floodplain studies, master plan documents or other studies or documents related to hydrology, hydraulics, stream geomorphology, wildlife habitat, or wildlife corridors.

10-50.90.050 Steep Slopes

A. Applicability

Slope is measured by taking the vertical distance, or "rise," over the horizontal distance, or "run." The resulting fraction, or percentage, is the "slope" of the land. Steep slopes, as applied in this Division, are those areas of land that exhibit slopes of 17 percent and greater. The slope area to be protected is based on the steepness of the slope and the zone as illustrated in Table A (Slope Protection Thresholds), below.

Table 10-50.90.050.A: Slope Protection Thresholds				
Slope	Residential Zones Commercial, Industrial, and Public Lands Zones			
0 – 16.99%	No protection; development permitted			
17% – 24.99%	70% of slope area 60% of slope area			
25% - 34.99%	80% of slope area			
>35%	No development allowed; however, these areas can be used to determine the resource area to be protected			

End Notes

Except for mixed-use developments with residential uses such as those within a Traditional Neighborhood Community Plan (See Division 10-30.80), where the slope protection threshold shall be 70 percent of slope area.

B. Data Sources

Steep slopes shall be determined through the use of a digital terrain model (DTM) with an accuracy of plus or minus one foot. The analysis shall be performed using a computer program such as AutoCAD Civil 3D, Arc View, or equivalent and presented in a hatched or colored map. In the alternative, steep slopes may be determined manually using the methodology described in Subsection C, below.

C. Methodology

The following methodology may be used to identify steep slopes protected under this Division if a DTM is not used. An example of the methodology is shown in Figure A.

1. Steep Slope Determination

To qualify as a steep slope, the slope must be at least 17 percent with a 10-foot vertical drop over a 100-foot horizontal distance parallel to at least one common contour line. The horizontal measurement shall cross property lines to establish if a steep slope may exist on a parcel (i.e. the 100-foot minimum width calculation shall cross a property line if necessary to achieve this minimum width).

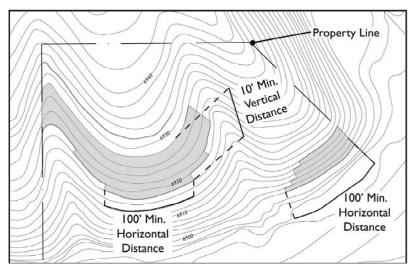


Figure A. Steep Slope Identification Methodology

2. Area Calculation

Steep slope areas should be calculated based on the square feet of qualifying steep slope on the parcel as determined in Subsection 1, above. There is no minimum square footage for each slope area.

- a. Calculate the square footage of slopes 35 percent and greater first. Determine the square footage of each area as well as the sum of the areas for the total site.
- b. Calculate the square footage of slopes between 25 and 34.9 percent second. Determine the square footage of each area as well as the sum of the areas for the total site.
- c. Calculate the square footage of slopes between 17 and 24.9 percent third. Determine the square footage of each area as well as the sum of the areas for the total site.
 - (1) Horizontal extensions of steep slopes with less than 10 feet of vertical drop shall be included in this category to calculate the area of steep slope.
 - (2) Areas of slope that do not qualify by themselves as steep slopes for the 25 to 34.9 percent category or the 35 percent and greater category (i.e. minimum 10 feet vertical and 100 feet horizontal distance) shall be included in this category to calculate the area of steep slope.

3. Steep Slope Resource Area

Based on the area calculations in Subsection 2, above, Table A (Slope Protection Thresholds) shows the percentage of slope area that must be included in the resource protection area. The steep slope areas to be protected shall be included in the survey (Section 10-50.90.070.C.2.).

10-50.90.060 Forest

A. Applicability

Forest, as applied in this Division, includes the following:

- 1. Ponderosa Pines and Ponderosa Pine forests; and
- 2. Native trees (other than Ponderosa Pines) and native tree forests, including Douglas firs, Gambel oak and associated thickets, juniper, and pinion pine trees.

B. Methodology

- 1. This Section establishes a minimum forest resource protection threshold for all parcels subject to the Resource Protection Overlay (RPO). Forest resources are determined according to the resources survey requirements (Section 10-50.90.070 (Resources Survey Requirements)), which establish the quality and priority for forest resource protection based on a point rating system.
- 2. Table A (Forest Resource Protection Thresholds as a Percentage of Site Area), below, shall be used to determine the minimum amount of forest resources that must be retained onsite. Protection thresholds applicable to affordable housing developments are located in Division 10-30.20 (Affordable Housing Incentives).

Table 10-50.90.060.A: Forest Resource Protection Thresholds as a Percentage of Site Area				
Public Lands	Residential	Commercial	Industrial	TNCP
30%	50%	30%	20%	30%

The amount of forest resources required to be protected on a development site may be reduced through the application of the following Sections of this Code:

- a. Section 10-30.20.040 (Affordable Housing Incentives);
- b. Section 10-30.60.030.B.2 (Solar Orientation or Aspect);

- c. Section 10-30.60.060.B.1 (Civic or Public Space Requirement);
- d. Section 10-50.60.050.A.1 (Plant Material Considerations); and
- e. Section 10-50.80.060.E (Parking Reductions for Forest Resources).
- 3. Traditional Neighborhood Community Plans (TNCP) (Division 10-30.80) are primarily concerned with the form and character of development through the application of transect zones. The transect zones provide a variety of rural to urban forms where the level of forest protection may vary. In the more urban zones such as the T4 Neighborhood and T5 Main Street Transect Zones, protection of forest resources is secondary to the creation of urban form and character, and, while the protection of forest resources is strongly encouraged, in most cases it may not be feasible. However, in the T1 Natural and T2 Rural Transect Zones virtually all of the forest resources shall be protected, while in the T3 Neighborhood Zones, most forest resources in a Traditional Neighborhood Community Plan shall be calculated as an average across the entire site, and not specifically for each transect zone within the Traditional Neighborhood Community Plan.

10-50.90.070 Resources Survey Requirements

A. Applicability

An application for development approval that is subject to this Division shall include a resources survey, in compliance with this Section.

B. Qualifications of Preparer

The survey shall be prepared by an individual or individuals approved by the City with the demonstrated education, training, or experience to prepare these surveys in a professional and competent manner. Resource surveys include not only a survey of tree locations, but also include for example, a description of the ecological value of the Ponderosa pine forest. A boundary survey shall only be performed by a land surveyor registered in the state of Arizona consistent with statutory requirements for such surveys. The Director may authorize acceptance of qualified individuals to perform resource surveys upon receipt of a resume demonstrating an individual's capabilities. The Director's decision to accept or deny an expert shall be final.

C. Survey Contents

The resources survey shall identify natural resources as defined in this Division and recommend appropriate resource protection and/or mitigation measures. The resources survey shall include the following information, if applicable:

1. Topographic maps and narrative delineating urban or rural floodplains as defined in Section 10-50.90.040 (Floodplains);

- 2. Maps and narrative describing steep slopes as defined in Section 10-50.90.050 (Steep Slopes);
- 3. Maps and narrative describing forest as defined in Section 10-50.90.060 (Forest);
- 4. Description of ecological value of the Ponderosa pine forest based on tree size, condition, and location;
- 5. Identification of all Ponderosa pines with a DBH of 6 inches or more or other native trees over 10 feet in height. These trees shall be assigned points as listed in Table A (Point Rating System for Ponderosa Pines) and Table B (Point Rating System for Other Native trees), below. If it is determined that the tree is weak, damaged, infected or otherwise lacks vigor, the tree shall may not be assigned the number of points based on its DBH, and the survey preparer may assign fewer or no points to that tree;
- 6. Survey of forest resources with total points assigned based on the tree sizes listed in Table A (Point Rating System for Ponderosa Pines) and Table B (Point Rating System for Other Native Trees), below. Areas to survey shall be determined according to Subsection D, below.
 - a. Table A (Point Rating System for Ponderosa Pines) shows the point rating system for Ponderosa pines (The last column of this table is included for informational purposes only and is not used as part of the forest resource calculations; it is useful however, to determine permitted encroachments into forest resource areas – see below):

Table 10-50.90.070.A: Point Rating System for Ponderosa Pines			
DBH	Points	Average Diameter of Canopy (feet)	
< 6 inches	0 points	8	
6 inches	I points	8	
7 inches	I points	10	
8 inches	I points	П	
9 inches	2 points	12	
10 inches	2 points	14	
II inches	2 points	15	
I2 inches	2 points	16	
13 inches	4 points	18	
14 inches	4 points	19	

DBH	Points	Average Diameter of Canopy (feet)
15 inches	4 points	20
16 inches	4 points	21
17 inches	4 points	23
18 inches	8 points	24
19 inches	8 points	25
20 inches	8 points	27
21 inches	8 points	28
22 inches	8 points	29
23 inches	8 points	31
24 inches	8 points	32
> 25 inches	20 points	>33

Source: NAU School of Forestry for Young Growth Ponderosa Pine Trees.

b. Table B (Point Rating System for Other Native Trees) shows the point rating system for native trees (other than Ponderosa pines):

Table 10-50.90.070.B: Point Rating System for Other Native Trees			
Species	Threshold to be Assigned Points (tree height)	Points	
Douglas Firs, Gambel Oak and Oak thickets, Junipers, Pinion Pines	Greater than 10 feet	8	

- 7. Final determination of the forest resources to be protected is calculated by applying the forest resources protection threshold (Table 10-50.90.060.A (Forest Resource Protection Thresholds as a Percentage of Site Area)) to the results of the forest survey completed in Subsection C.6, above;
- 8. Areas of Encroachment on Forest Resources.
 A maximum of 20 percent of a tree's canopy may be encroached upon (see Figure A, below). If more than 20 percent encroachment occurs, the tree will be considered "removed." The 20 percent encroachment rule applies to temporary and permanent encroachments, such as construction materials storage, sidewalks, and structures; and

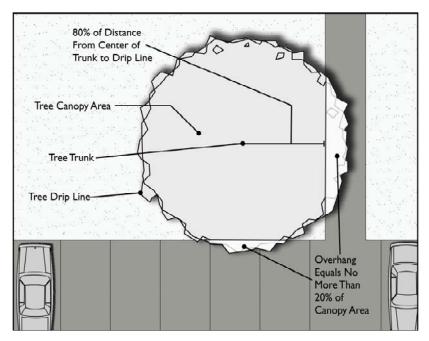


Figure A. Allowed Temporary and Permanent Encroachment on Tree Canopy

9. Determination of areas most suitable for natural resource retention and protection based on the standards of this Division and the prioritization for resource protection established in Section 10-50.90.030 (Priority for Resource Protection).

D. Forest Area Surveyed

- 1. If a development application covers less than five acres, 100 percent of the site must be surveyed for forest resources.
- 2. If a development application covers five or more acres, sampling of forest resources may be employed. In selecting the sample area(s) the intent is to sample the areas most representative of forest resources on the site. At least 15 percent of the canopy area shall be sampled based on the canopy area as determined by aerial photography and field checking. Section 5.1.030 (Summary of How to Apply forest Resources) in Appendix 5 (Additional Information Applicable to Division 10-50.90 (Resource Protection Standards) includes an explanation of a sampling technique that distributes one-tenth acre circular plots uniformly across a minimum of 15 percent of the site. Alternative sampling techniques may be employed if an applicant can demonstrate to the Director's satisfaction that the suggested technique is representative of the distribution of forest resources on the site.

10-50.90.080 Natural Resources Protection Plan

When natural resources are retained under this Division, a natural resources protection plan shall be submitted with the grading plan and shall include the following information.

A. Natural Resources Areas

The natural resources area calculated and mapped according to Section 10-50.90.070 (Resources Survey Requirements) shall be included as part of the natural resources protection plan.

B. Limits of Land Disturbance, Clear-Cutting, Grading and Trenching Layout of the onsite utility and grading plans shall accommodate the required natural resource area(s). Utilities shall be placed outside of the natural resource areas except as allowed in Sections 10-50.90.070 (Resources Survey Requirements) and 10-50.90.100 (Activities Allowed in Natural Resources Areas).

C. Resource Protection During Construction

See Section 10-50.90.090 (Resource Protection During Construction).

D. Schedule

Documentation of procedure and schedule for the implementation, installation and maintenance of forest protection measures.

E. Permeable Surfacing

A permeable area, equal to the area encircled by the drip line, shall be provided around existing forest that will be used as landscaping to allow water absorption and growth.

F. Permit Approvals

Issuance of grading and building or other permits is contingent upon approval of a natural resources protection plan.

G. Inspection

The Director will conduct site inspections for the enforcement of natural resource protection measures. Inspections may be withheld or a Stop Work Order or notice of violation shall be issued if a development is found to be out of compliance with the protection methods approved in the natural resources protection plan.

10-50.90.090 Resource Protection During Construction

Natural resources to be preserved onsite shall be protected before onsite land disturbance commences so as to prevent root damage, trunk damage, and soil compaction. Land disturbance includes grading, clear-cutting, trenching, and building construction. Resource protection shall consist of the following:

A. Fencing

Temporary fencing shall be installed along the outer edge of the natural resource(s) and completely surround the drip lines plus five feet of all trees or clumps of trees within 50 feet of proposed land disturbance areas. Figure A, below illustrates the temporary fencing requirements. The following conditions shall also apply:

- 1. Temporary fencing shall be polyethylene laminar safety "snow fencing" (minimum of four-foot high) which is securely embedded into the ground in such a way that it cannot be easily moved or pushed over.
- 2. Temporary fencing shall not be attached to trees.
- 3. Areas within the temporary fencing shall be kept free of construction materials, vehicles, equipment and debris, except as provided in Section 10-50.90.070.C.8.
- 4. Temporary fencing shall be installed prior to and maintained throughout the land disturbance process and shall not be removed until landscaping is installed or financial assurance is posted for the required landscaping.

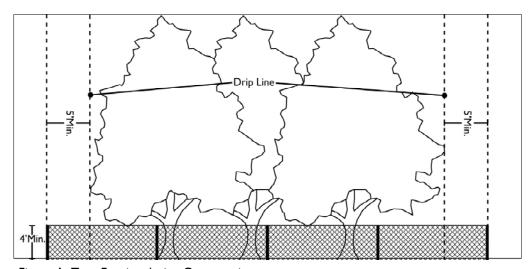


Figure A. Tree Fencing during Construction

B. Tree Wells

Tree wells are required where grade changes are proposed which would affect resource preservation. Tree wells shall be constructed to ensure that no soil is added to the natural grade around and under the tree canopy. Removal of tree protection fencing to construct tree wells is subject to review and approval by the Director. Tree wells are illustrated in Figure B.

C. Construction Site Activities

Construction site activities, such as parking, material storage, concrete washout, etc., shall be arranged to prevent disturbances of natural resources. These measures also protect natural resources from silt and sedimentation.

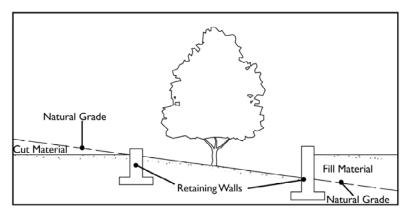


Figure B. Tree Well

10-50.90.100 Activities Allowed in Natural Resource Areas

Natural resource areas contain fragile natural features such as floodplains, steep slopes, and forest that can be adversely impacted by development. In the RPO Zone these areas must be set aside for resource protection to meet the minimum requirements of this Division. Activities that are allowed in natural resource areas are shown in Table A (Activities Allowed in Natural Resource Areas).

Table 10-50.90.100.A: Activities Allowed in Natural Resource Areas				
	Floodplains		Steep Slopes	Forest
	Urban	Rural	(17 to 35%)	rorest
Ranching				
Bee keeping	No	Yes	No	Yes
Fields or pasture	Yes	Yes	No	No
Livestock enclosures	No	No	No	No
Nurseries	Yes	Yes	No	No
Recreational				
Active recreation	Yes	Yes	No	Yes
Garden plots/Community Gardens	Yes	Yes	No	Yes
Passive recreation	Yes	Yes	Yes	Yes
Picnic area	Yes	Yes	No	Yes
Other				
Drainage	Yes	Yes	No	Yes
Landscape buffer (see Division 10-50.60 (Landscaping Standards)	Yes	Yes	Yes	Yes
Utilities (includes service lines)	Yes	Yes	Yes	Yes

10-50.90.110 Mitigation

Where meeting the standards in this Division results in scattered building sites, areas that are too small to be reasonably used, or other design problems that cannot be resolved by revised site layouts, the Director or the Planning Commission may apply the following mitigations. However, in no case shall the provisions in this Section apply to rural floodplains.

A. Director

The Director may allow modifications up to five percent of the natural resources areas to be protected. In such case, the Director may require mitigation that complies with Subsection B.2 below.

B. Planning Commission

The Planning Commission may allow modifications to development projects for which it has review authority that comply with Subsections B.2 and B.3, below, of up to 10 percent of the resource protection standards as follows:

- 1. If retention of natural resources cannot be maintained, the resources survey must demonstrate:
 - a. Why priority areas described in Section 10-50.90.030 (Priority for Resource Protection) cannot be retained;
 - b. That there are no reasonable methods or techniques to implement the resource protection requirements of this Division;
 - c. A proposal for mitigation as defined in this Section; and
 - d. Mitigation proposals should not create future fire problems and have been approved by the FFD.

2. Onsite Mitigation

- a. Onsite forest shall be replaced at a three to one ratio with additional irrigated landscaping of a number, type and size that meets the intent of this Division. The species of plants used in mitigation shall be similar to those destroyed.
- b. For onsite mitigation of one acre or greater, a mix of trees, shrubs and plants is appropriate. Table A (Onsite Mitigation) provides a guide for the number of trees and plants per acre.

Table 10-50.90.110.A: Onsite Mitigation 4 native evergreen trees, minimum 6-foot height 8 native deciduous trees, minimum 2.5-inch caliper 80 native evergreen trees, minimum 4-foot height 20 other trees, 10-gallon evergreen or deciduous

3. Offsite Mitigation

In situations where the natural resources of a parcel are located in the only feasible area for development, a applicant may mitigate the impacts according to the following requirements:

Disturbed areas should be seeded with native grass and/or wildflower mix

- a. Planting of one and one-third acres of new forest offsite, or preserving one acre of existing forest in areas designated by the City for preservation and enhancement. Offsite planting may only be used when the applicant or the City owns or controls the site(s);
- The species of plants used in mitigation shall be similar to those destroyed. Table A (Onsite Mitigation), above provides a guide for the number of trees and plants per acre;

- The applicant shall provide financial assurances indicating that all plant material that dies within three years shall be replaced with similar material containing a similar guarantee period;
- d. A temporary irrigation system approved by the Director shall be installed in all planted areas; and
- e. The land on which the mitigation is to take place shall be permanently preserved and deed restricted with a protective easement or the property deeded by fee title to the City in a form approved by the City Attorney and accepted by the Council.
- 4. When evaluating the mitigation of natural resources, the Director or Planning Commission may require extraordinary development practices including the tunneling of utilities, placing all utilities under the street, stepping or spanning foundations, pumping concrete, using small equipment to minimize site disturbance or hand digging, and leaving exposed rock in place as part of the overall site design.

10-50.90.120 Enforcement

- A. Any individual, corporation, association or other entity violating any provision of this article shall, upon conviction thereof, be punishable by a fine not exceeding \$1,000 per offense. The cutting down or destruction of each tree shall constitute a separate offense.
- B. If trees identified as forest resources are cut down, destroyed, intentionally damaged or removed for any reason, in conjunction with any land use, development, or soil movement activity in excess of the specified number of trees that were approved for removal by City issued permit, a Stop Work Order shall be issued (Refer to Section 10-20.110.90 (Enforcement by Stop Work Order)), and restitution shall be made by the applicant in accordance with the schedule in Table A (Tree Replacement), below, and replaced if they die within the first three growing seasons.

Table 10-50.90.120.A: Tree Replacement				
Diameter of Tree Removed (Inches DBH)	Number of 2 ½-Inch Caliper Trees to be Planted	OR number of 4- Inch Caliper Trees to be Planted	Fines for Illegal Tree Removal (per tree)	
6 to 12	4	2	\$1,000	
13 to 17	6	3	\$2,000	
18 to 24	8	5	\$5,000	
25 and over	15	8	\$10,000	

C. In cases where such tree removal or clearing by the landowner occurs prior to meeting the standards of this Division, the natural resource calculations and locations shall be determined by the Director utilizing the most suitable photographs available, taken prior to the removal, and other reliable data.